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Subject: Comments on draft notification on sharing of inter-state transmission charges and losses regulation 2019

Sir,

Kindly find attached herewith the comments on draft notification on sharing of inter-state transmission charges and losses regulation 2019 in respect of DNHPDCL, Silvassa.

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Thanks and regards,

C. A. Parmar, Chief Engineer,

DNH Power Distribution Corporation Ltd., CINU40100DN2012GOI000405

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Office no. 0260-2406500 Website: www.dnhpdcl.in <u>Comments on draft Notification paper of honourable CERC on sharing of Inter-State Transmission Charges and Losses Regulations, 2019, Dated: 31st October in respect of DNHPDCL, Silvassa.</u>

1. Chapter – I

Peak block has to be determined based on maximum net drawals by all states during the month. It is inferred that all India peak is considered even though regional peaks differ widely. Further, state peaks also may not be coincident with regional/national peak. Those states who are having their peak far away from national peak have less usage of ISTS at the time of national peak which may lead to reduced sharing of POC Charges.

2. Chapter – II

National component of transmission charges (NC) comprising:

- a) National Component-Renewable Energy (NC-RE); and
- b) National Component HVDC (NC-HVDC).

Will be burdening the states other than RE rich states and the states using high capacity HVDC lines. An attempt is made to socialize the cost of green corridors used for RE Power and excess capacities built in high capacity HVDC network. Basically, several substations and 765 KV AC/HVDC Network is built to transmit the power from RE rich states like Gujarat, Rajasthan to Punjab and Haryana as well as from AP, Tamil Nadu to other states. RE rich states who are not able to consume renewable energy who will now be getting the benefit of reduced transmission charges. Instead, these RE rich states should be encouraged to consume RE power. Further, since all states are sharing the burden of high capacity green corridors, it is prudent to issue REC certificates corresponding to the cost booked to the states to compensate the burden.

Sharing of 100% of transmission charges for "Back to back HVDC" Transmission System; and Transmission System corresponding to 1005 MV Capacity are perfectly reasonable.

The other HVDC network proposed for socializing the transmission charges was primarily built for evacuating surplus power in generation rich states and due to cancellation/postponement of several large sized hydro projects (Subansiri in AP, Etc.) Most of this system is sparsely used and has high sunk cost. It is prudent to book such costs to states having surplus of generation only and who are exporting power. This cost can also be booked to states under drawing power.

NC-RE and NC-HVDC components are basically due to over-built and stranded infrastructure. Hon'ble. CERC may consider creating regulatory asset corresponding to such sunk cost or may recover the tariff over longer period (Than 35 Years). Presently, since 10% of MTC and 10% of HVDC charges or treated as "Reliability Support Charges" and shared by all the DICs, socialisation to the extent of 10% is already done and fully justified as reliability is a common good and responsibility of all DICs.

Sharing of Regional Component (RC)

Regional component of HVDC (RC-HVDC) can be taken care of based on marginal flow vector of MP method based on actual usage and shall not be booked to all. In any case 10% of these HVDC links are shared by all as reliability support charge.

Socialising not desirable in case of transmission charges of STATCOMs, SVCs, Bus Reactors, etc. are mainly meant for local voltage control and have less implication to grid reliability. Sharing of 10% of the transmission charges under reliability support charge would be proper. STATCOM/SVC/Bus Reactors were planned as part of substations or network mainly for evacuation of generating stations or green corridors. However, those planned under system strengthening schemes can be considered for socialising across the region. In case of FACT devices used for control of power flow within regional network and all FACT devices, Reactors provided for inter-regional network can be taken under RC/NC for sharing by all.

Components and sharing of Transformers Component (TC)

This proposal is in order.

Components and sharing of AC System Component (ACC)

No comments

Computation of share of transmission charges under AC-USB

We agree to the proposed methodology under para 8 of the Draft regulation in respect of component and sharing of AC system component (ACC) viz. AC system component shall be divided into two components.

The base case file is prepared after the fact by the IA. Since the transmission charges are calculated post-facto, trading and open access would be adversely affected as unexpected increase in transmission charges can make some trades non profitable and risky especially to traders and DISCOMs. Is it right to waive off transmission charges to all STOA customers.

Clauses 5 and 6 under regulation 9 of chapter II propose to book higher transmission charges to the lines heavily loaded and light loaded and less transmission charges to lines lightly loaded (possibly due to over-capacities). Thus, more cost is supposed to be socialised by all in the less used lines thereby subsidising utilities for whom such under-utilised network was built. This amounts to encouraging inefficiencies in the planning process.

The usage base component (AC-USB) — Transmission charges to be shared by DICs corresponding to their respective usage of transmission lines. Whereas the percentage usage of each transmission line shall be computed by dividing power flow in the base case by surge impedance loading of the line.

Technical justification for using surge impedance loading for line loadability

For computing surplus capacity in the transmission lines, surge impedance loading is used as a key determinant. In case of lines with loadability less than surge impedance loading, yearly transmission charges to be recovered through usage basis (Hybrid methodology) reduces due to multiplication factors less than one. Major portion of the capacity is covered under Balance Component (AC-BC) and is socialised. Instead of surge impedance loading, line loadability as per St. Claire's Curve can be a better option as the surplus capacity built in would be more apparent. Further, since 10% of MTC was considered presently under reliability support charge, the upper limit for socialising/subsidising should not exceed 10% of the cost of any transmission element.

The balance component (AC-BC) — transmission charges to be shared by all drawee DICs in the ration of the long term access plus medium term open access. Whereas in respect of injecting DICs with untitled LTA capacity, it shall be shared by injecting DICs in the ration of their untitled LTA capacity.

3. Chapter – III

No comments

4. Chapter- IV

- 12. (1)"by the state" may be replaced by "to ISTS Licenses"
- 12. (5) Post-facto evaluation of transmission charges is likely to affect power trading and open access in an adverse manner. It may be ok in case of long term access and medium term open access. For short term open access (STOA), injection POC charges and withdrawal POC charges have to be determined in Paise/KWH and rate should be available at least 3 months in advance (STOA is up to three months, one month at a time). To support efficient financial base for STOA, the present method may be continued. Further, open access customers (STOA and MTOA) need not have to participate in socialising/subsidising over-built capacities as the usage of transmission is for limited period and there is no certainty to get the requisite quantum of corridors for their transactions and also low priority given to them especially regarding curtailment, renewal aspects.
- 13. (c) (iii) Transmission deviation rate is proposed to be raised 1.2 times (Earlier same POC rate up to 20% deviation and 1.25 times above 120% of approved withdrawal) which will discipline the DICs in correctly assessing their transmission requirement and in booking access rights. The amount collected through transmission deviation mechanism can be used to reduce the burden of built-in excess capacities.

13. (3) The proposed stipulation is about completely eliminating STOA charges for usage of ISTS. On one hand, the proposal is to reduce the burden of paying for excess capacities and socialising the costs, on the other hand, it is also proposed to have no STOA charges at all. In fact, with growing power markets in the country, STOA is likely to garner major share of power market and completely allowing free transmission (no charges) to STOA is not desirable. The income that can be earned through STOA would progressively increase and pay for the margins and excess capacities built-in rather than seeking subsidies/socialising among the long term access holders. In fact, STOA customers have to use the margins/excess capacity on the transmission only.

5. Chapter - V

No comments

Annexure - I

No comments

Annexure - II

It may be studied whether SIL has to be considered for different configurations for each voltage viz lines without reactors, lines with reactor at one end, lines with reactors on both ends, lines with series capacitors, etc. as SIL would be different.

Conclusions and Prayer

- 1. The Hon'ble. Commission in July 2011 implemented the POC mechanism with 50% uniform charge and 50% POC through hybrid methodology (AP and MP methods) to reduce sudden force of change from the previous mechanism (Postage Stamp). Later, Hon'ble. Commission ordered for recovery of transmission charges through 100% hybrid methodology. This was to ensure that the transmission pricing mechanism is more scientific and technical and to have a differential pricing mechanism. However, the revisions proposed now would make the pricing mechanism skewed and bring in inefficient subsidising and socialising methodology and promote inefficient planning and usage of resources.
- 2. Post-facto determination of transmission pricing and sharing formula do not promote power markets.
- **3.** Elimination of transmission charges for STOA is another freebe which will only burden the long term customers as already transmission charges and losses in ISTS are waived off for RE generators. Hon'ble commission may reconsider those aspects.

- **4.** Computing surplus capacities using surge impedance loading has no sufficient justification. Hon'ble commission may order for more in-depth studies.
- **5.** MTOA users are also required to subsidize for built-in excess capacities which is not desirable. This would discourage the MTOA due to increased costs.
- Commission to the affected DICs. For instance, in case of Dadra & Nagar Haveli, POC charges increased from around 80 crores to 300 crores due to commissioning of high cost assets with surplus unused capacities and non-completion of certain planned corridors by some of the states. The case in point is DNH is mainly fed through 400 KV Kudus Kala D/C lines and partly through Vapi (Ambheti) Substation. Non-commissioning of off- take lines and transformers from Kudus substation by Maharashtra (MSETCL) caused loop flows in Kudus-Kala-Vapi-Kharadpada. Instead of changing the POC methodology, DNH can be compensated by using a separate base case in which the proposed network at Kudus is considered. The states who are inordinately delaying approved projects connecting to ISTS need to compensate those states who are affected by such loop flows etc.

Further, it is submitted that the intended purpose of the existing PoC methodology may be fairly served when the downstream transmission (State network – STU) associated with upstream transmission system (planned by CTU) timely gets commissioned. For example, in order to meet the requirement of Maharashtra system (STU), PGCIL erected new 765 KV transmission lines from Kudus to Kala. However, contrary to the plan, Maharashtra system could not develop its associated 220KV downstream transmission system from Kudus. Such non-completion of downstream elements has resulted into non-usage of the upstream transmission system built for Maharashtra.

- 7. Hon'ble. Commission may also consider for creating regulatory assets to reduce the burden of higher transmission charges due to unused and excess built-in capacities. Further, tariff collection period for such assets should be increased from the present useful life of 35 Years to 40/50 years as this would restrain transmission licenses from inefficient planning and wastage of national resources. Additional revenue, the transmission licensees get from TELECOM BUSINESS using the transmission assets can offset some of the costs/burden. The burden on the DICs can also be reduced from the surplus fund generated from Deviation Settlement Mechanism (Deviation charges), congestion control mechanism, transmission deviation pricing mechanism etc. (instead of diverting to PSDF).
- **8.** Subsidising for excess built-in capacities can be done only through reliability support mechanism. Hon'ble. Commission may kindly consider.

9. It is not clear whether transmission charges for STOA customers totally waived off as the present revisions call for post-facto accounting. Hon'ble. Commission may reassess the impact of such a provision.

Chief Engineer

DNH Power Distribution Corporation Ltd.
U.T. of Dadra & Nagar Haveli, Silvassa